

AAS Meeting #194 - Chicago, Illinois, May/June 1999  
Session 32. Coronal Holes and Solar Wind  
Oral, Monday, May 31, 1999, 2:00-3:30pm, Continental Ballroom B

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## [32.01] Coronal Hole Myth

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White-light measurements made by the SOHO LASCO (Large Angle Spectrometric Coronagraph) coronagraph and HAO Mauna Loa Mk III K-coronameter are used to follow path-integrated density structure in the solar corona as it evolves from 1.15 to 5.5 Ro. Global imaging confirms and strengthens earlier results from spacecraft radio ranging measurements [Woo and Habbal, ApJ, 510, L69, 1999], that the imprint of density structure at the Sun — as manifested in the background azimuthal density profile closest to the Sun at 1.15 Ro — is carried essentially radially into interplanetary space. The only exception is the relatively small volume of interplanetary space occupied by the heliospheric current sheet that evolves from coronal streamers within a few solar radii of the Sun. These measurements dispel the long-held belief that the boundaries of polar coronal holes diverge significantly. They also imply that a significant fraction of field lines which extend into interplanetary space originate from the quiet Sun, and are indistinguishable in character from those emanating from polar coronal holes. These results further support the view originally proposed by Woo and Habbal [GRL, 24, 1159, 1997] that the fast solar wind originates from the quiet Sun as well as polar coronal holes.

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